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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,080

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EXAMINER

PARKER, BRANDI P

ART UNIT

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3623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/735,080	Applicant(s) OUMET, KENNETH J.	
	Examiner BRANDI P. PARKER	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgements

1. The following is a Final Office action in response to communications filed on June 13, 2008. Claims 1, 17 and 21 have been amended. Claims 1-23 are pending.
2. The previously pending rejection as to claims 1-23 under 35 USC § 101 has been withdrawn

Response to Applicant's Remarks

3. Applicant's arguments regarding claims 1-23 filed on June 13, 2008, have been fully considered and is not persuasive. The rejection of claims 1-23 under 35 USC § 102 and 103 stand.
4. With respect to Applicant's argument that Elad fails to teach independent functions separated from a planning function to determine an optimal set of decisions, Examiner respectfully disagrees. Elad discloses having a combined objective function, and then using the components of the combine function separately to generate a score that indicates the obtained decision (column/line 41/34-45, regarding constraint functions alone and the objective function alone, which is derived from the combined objective function). Therefore, Examiner maintains the rejection of claim 1.

5. With respect to Applicant's argument that Elad teaches a "trial-and-error" methodology and not optimizing the set of independent functions, Examiner respectfully disagrees. Elad teaches providing solutions to linear or non-linear, discrete or continuous, and optimization problems (see abstract). Furthermore, the manipulation of variables based on various constraints to obtain the best possible score consist of and "optimization" process (column/line 12/19-35, regarding determining the best score by satisfying constraints). Therefore, Examiner maintains the rejection of claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 15 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated over Elad et al (US 5195172).

7. With respect to **claim 1**, Elad teaches:

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- a. generating a planning function describing said planning model, said planning function depending upon said set of decision variables (column/line 37/5-9);
 - b. separating said planning function into independent planning functions, each of said independent planning functions depending upon different ones of said set of decision variables (column/line 41/34-39);
 - c. independently optimizing each of said independent planning functions to obtain said decisions for said different ones of said set of decision variables (column/line 12/27-35, 40/48-59); and
 - d. presenting an outcome of said optimizing operation, said outcome indicating said obtained decisions (column/line (40/54-59).
8. Regarding **claims 2-4 and 22**, Elad teaches a method as claimed in claim 1 wherein said planning function to be a non-linear, discrete or continuous function of at least one of said decision variables (abstract).
9. As to **claim 15**, Elad teaches a method as claimed in claim 1 wherein said presenting operation comprises providing said decisions for said different ones of said set of decision variables that optimize said each of said independent planning functions (column/line 12/27-35, 40/48-59).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5-11, 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elad et al (US 5195172) in view of Ouimet (US 6308162).

12. As to **claim 5**, Elad teaches said planning model incorporates a primary objective and a strategic objective of said enterprise; said method further comprises:

e. defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables (column/line 36/41-46);

Elad does not directly teach including a strategic objective function in to the planning model. However, Ouimet teaches defining a strategic objective function describing said strategic objective, said strategic objective function including a subset of said decision variables; and said generating operation incorporates said primary objective function and said strategic objective function within said planning function (column/line 4/7-8).

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It would have been obvious to one of ordinary skill in the art to include the planning model of Elad with the ability to include a strategic objective function in to the planning model as taught by Ouimet since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

13. With respect to **claim 6**, Ouimet teaches specifying a plurality of values for a strategic factor, said strategic factor being configured to adjust an influence that said strategic objective has on said planning model; and coupling said strategic objective function with said strategic factor (column/line 5/30-42, 7/16-25).

14. Regarding **claim 7**, Ouimet teaches wherein said independently optimizing operation optimizes said independent planning functions for each of said values of said strategic factor (abstract, column/line 2/37-42).

15. As to **claim 8, 9 and 20**, Elad teaches the capability of having multiple objective functions and strategic factors present in the optimization analysis (column/line 37/5-14, 37-46). The addition of factor the second function and strategic is a mere duplication of the claimed method in the aforementioned claims. According to *In re Harza*, mere duplication of parts has no patentable significance unless new and unexpected results are produced. 214 USPQ 378 (CCPA 1960).

16. Regarding **claim 10 and 18**, Ouimet teaches selecting an optimization algorithm from a group comprising a closed form solution, a one dimensional maximization of continuous decision variables, a one dimensional maximization of discrete variables, and a general multidimensional method (column/line 7/40-45, 62-67).

17. As to **claims 11**, Ouimet teaches a method as claimed in claim 1 wherein said planning model incorporates a primary objective of said enterprise, and said method further comprises:

f. defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables, and said generating operation incorporating said primary objective function within said planning function (column/line 2/6-8);

g. determining a coupling between said decision variables in said primary objective function (column/line 2/8-10);

h. introducing an embedded constraint into said primary objective function (column/line 2/15-27); and

i. following said introducing operation, performing said independently optimizing operation to optimize said primary objective function while concurrently satisfying said embedded constraint (column/line 2/37-42).

Ouiment does not explicitly teach that the objective functions and respective decision variables can be independently optimized. On the other hand, Elad teaches that the respective objective functions and constraints can be optimized independently or together (column/line 41/34-39).

18. With respect to **claim 16**, Ouimet teaches wherein said presenting operation comprises providing a plurality of scenario points, each of said plurality of scenario points being associated with said decisions for said decision variables that optimize said each of said independent planning functions (column/line 4/43-49).

19. **Claim 17 and 21** combine claims 1 and 5 and places the executing instructions on a computer-readable storage medium. Therefore, claim 17 is rejected on the same rationale as claims 1 and 5 as provided above.

20. **Claim 19** combine claims 6 and 7 and places the executing instructions on a computer-readable storage medium. Therefore, claim 19 is rejected on the same rationale as claims 6 and 7 as provided above.

21. Claims 12-14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elad and Ouimet in further view of Dietrich et al (US 5630070)

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22. With respect to **claims 12-14 and 23**, Ouimet and Elad teaches the method as claimed in claim 11. Ouimet and Elad do not explicitly teach the introduction of additional constraint factors or variables for the constraint function. However, Dietrich teaches introducing additional decision variables that correspond to different products that are being tracked in a method for inventory system optimization (column/line 10/66-11/3). It would have been obvious to one having ordinary skill in the art to modify Ouimet and Elad with the optimization methods provided in Dietrich because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

24. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDI P. PARKER whose telephone number is (571) 272-9796. The examiner can normally be reached on Mon-Thurs. 8-5pm.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRANDI P PARKER/
Examiner, Art Unit 3623

/Andre Boyce/
Primary Examiner, Art Unit 3623